Horticulture Tips
February 2004

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

Pecan Graftwood Source List
Becky Carroll

The new 2004 pecan graftwood source list is attached to this edition of Horticulture Tips.

2004 Oklahoma Pecan Management Course
Becky Carroll

Since the first offering of The Oklahoma Pecan Management course in 1997 over 200 pecan growers have taken advantage of the in depth coverage the course offers for all facets of pecan management for native as well as improved varieties including pest management. Course content is suitable for those who are experienced pecan growers and want to hone their skills as well as those who are just beginning to manage or plant trees. The 2004 edition will continue that format in nine monthly meetings held at the Pecan Research Station, Perkins, OK from February through October. The course will include at least two visits to commercial pecan orchards which produce native and improved variety pecans.

The 2004 class will meet from 1 to 5 p.m. February 17, March 23, April 20, May 18, July 13, August 10, September 14 and October 19. The registration fee is $250.00 which includes all meeting supplies, a comprehensive reference book and refreshments. OPGA members receive a $25.00 discount on the course registration fee. Registration information can be obtained from your county extension office or from Stephanie (Department of Horticulture, 360 Agriculture Hall, OSU, Stillwater, OK 74078; steph@okstate.edu). Information can also be downloaded from the Oklahoma Pecan Management Page on the Internet
http://www.okstate.edu/OSU_Ag/asnr/hortla/ftpcns/pecans.htm

We look forward to having you in the 2004 Oklahoma Pecan Management Course. You will have a good time while you learn about pecan management.

New eLearning Pecan Course Available on the Internet

Becky Carroll

Want to learn more about pecan management but can't spare the time to enroll in OSU's pecan management course? Now anyone, near or far, (with an internet connection), can take advantage of the new eLearning pecan class – Fundamentals of Pecan Management. The website has been recently released and can be viewed at http://pecan.okstate.edu.

This self study course is available for a $75 fee. This fee provides the user with a password good for one year. The student can work at a comfortable pace reviewing information as needed. The online version of the pecan management course can be helpful to new or veteran pecan growers. The course is designed for commercial growers but can be useful to back yard tree owners as well.

The course is divided into seven parts: Introduction materials; native pecan management; improved variety management; pest management; storage, food safety, and sanitation; economics and marketing; and equipment. A quiz is included after each main topic to test the student's knowledge of each subject.

Instructions for registration and software requirements are listed on the web site.

Weed and Feed Products

David Hillock

The concept of combining an herbicide and a fertilizer to "kill two birds with one stone" may be good in theory but may not work in every situation. Several potential problems exist when using this approach.

The first is that the timing for herbicide application and fertilizer application are usually not in sync. Some weed and feed products contain preemergence herbicides that control weeds as they germinate and are best applied before late February depending on weather conditions. Fertilizer applications for warm season grasses such as bermudagrass should not go on until the first of May. See the problem?! The two really need to be applied at different times; so using a weed and feed blend on bermudagrass in later winter/early spring is not advised.

Second, the selection of formulations for weed and feed blends is much more limiting than if one were choosing only a fertilizer. Fertilizer formulations are much more diverse because fertilizer companies make many more types. Most companies that produce weed and feed products only make one type, not allowing one to take into account special nutrient needs that may have shown up in a soil test, i.e. a need for less or more phosphorus. Once again it is obvious that the best approach would be to apply weed killer and fertilizer separately. (Note also: Types of weed killer used in weed and feed blends is also limited compared to the many formulations available without fertilizer.)

Third, there is more chance of over-application or misapplication of the weed killer. Because tree and shrub roots can also absorb many of the herbicide products, care in applying the herbicide is very important. In fact, many of the herbicide products state that they should not be applied where roots of desirable trees or shrubs are growing. Research has shown that the roots of many tree species extend well beyond the dripline of a tree. So how does one apply an herbicide to turf areas with trees growing in or near them? By using separate fertilizer and herbicide products and avoiding weed and feeds. Another common problem is overthrow of the product into areas that have sensitive plants growing in them such as flower and shrub beds. This is usually a result of using the wrong equipment such as the use of a broadcast spreader rather than a drop or gravity spreader. Once again, it makes good sense to apply products separately allowing for more accurate rates and distribution.

And fourth and last, why treat healthy grass with something it does not need and could potentially weaken it? By the way, a weakened turfgrass is more likely to have weed problems. Spot treat only the weed prone areas.

The real way to address weed problems is to start with improving turf management. A vigorous, healthy lawn is able to choke out most weeds. For information on recommended turfgrass management practices see F-6420 Lawn Management in Oklahoma.

Proper Placement of Landscape Plants May Reduce Heating Costs

David Hillock

In the winter our gas or electric bills may reflect the efficiency or inefficiency of our homes. Besides the use of good insulation materials, a well planned landscape can also help reduce heat loss in winter. Unprotected homes lose much more heat on cold windy days than on equally cold still days. Well-located trees and shrubs can intercept the wind and cut your heat loss.

Up to one-third of the heat loss from a building may escape through the walls and roof by conduction. Wind increases the convective air currents along outside walls and the roof, thus increasing heat loss.

Infiltration or air leakage accounts for as much as one-third of heating losses in some buildings. Cold outside air flows in through cracks around windows, doors, and even through pores in the walls. Both windbreaks and foundation plantings can reduce this penetrating power of the wind.

Studies of windbreaks show that windbreaks can reduce winter fuel consumption by 10 to 30 percent.

The amount of money saved by a windbreak around a home will vary depending on the climate of the area, location of the home, and how the house is built. A well-weatherized house with adequate ventilation, caulking, and weather-stripping won't benefit from windbreaks nearly as much as a poorly weatherized house.

In addition to reducing the force of the wind, windbreaks also can reduce the wind chill impact on people outside the house.

Studies of three-row windbreaks, where trees were 25 feet tall, show that wind velocities and the wind chill index were effectively reduced by 60% for a distance of 125 feet downwind. It is estimated that a cedar type windbreak will reduce wind speed from 12 mph to 3 mph up to two times the height of the trees. Thus locate your windbreaks from 2 to 5 times the mature height of the windbreak trees from the house. However, many urban homes do not have this much space since you can expect the windbreak to take up 50 to 150 feet of area. Even a single row of evergreens is beneficial. Where space for the windbreak is at a minimum try some of the slim juniper cultivars like Skyrocket. Vines on a wire fence, trellis, or arbor can make a major contribution to wind and sun control in a limited space.

Windbreaks should extend beyond the area to be protected since wind speed increases at the ends of the windbreak. Where space permits windbreaks of two to five rows of trees and shrubs extending 50 feet beyond the ends of the area should provide good protection. Trees should be spaced 6 feet apart in the row and the rows should be 10 to 12 feet apart with trees planted in staggered arrangement. Evergreen trees provide the best protection, although dense branching deciduous trees can significantly reduce wind speed. Height and density are the most important factors when selecting plants to reduce wind.

Windbreaks of two to five rows of trees and shrubs generally provide good protection.

Windbreaks can be located to control snow, too. This reduces the energy required to remove the snow from around homes, other buildings, and roads. Make sure windbreaks are located so as to have the desired effect on drifting snow. They should not be more than seven times the anticipated heights from the road. Maximum protection is within an area five times the height of the trees.

So if your heating bill this winter has nearly broken you pocketbook, evaluate your landscape to see if additions of trees and/or shrubs this year might help reduce the bill next year.

Fresh Spring Vegetables

David Hillock

The days for fresh vegetables to be picked right from the garden are soon coming. The cold winter temperatures will soon be leaving allowing us to return to the garden and begin growing our favorite vegetables again. By February 15 many cool season vegetables like cabbage, carrots, lettuce, peas and potatoes can be planted (see chart). The exact time to plant will vary slightly depending on the winter and where you live in the state. The south/southwest region could be as much as two weeks ahead of the northwest and panhandle areas of the state. The thing to remember though is that soil temperatures at planting depth should be at least 40 degrees F.

The ease with which one is able to grow plants is greatly influenced by characteristics of the soil. Modifying or improving the soil prior to and during the gardening season is important.

Various fertilizer elements are necessary for plant growth and many can be easily applied. However, other aspects of soil improvement may not be as easily and readily accomplished. In a very sandy soil, the incorporation of organic matter would reduce rapid drying of the soil and improve nutrient availability. In a very heavy clay soil, organic matter would improve soil aeration, water absorption, and drainage.

Soil should absorb water readily, not form a crust upon drying, and drain sufficiently so that it does not become waterlogged. A porous soil contains more air, which is necessary for vigorous root growth. As organic matter decomposes, soil texture improves and nutrient availability should increase. More information on garden soil improvement is given in fact sheet F-6007, Improving Garden Soil Fertility.

The soil must contain a supply of water and available fertilizer nutrients. Soils that produced a vegetable crop the previous year will be more easily managed than those with established grasses and weeds.

Additional fertilizers may be beneficial to stimulate growth and production. These might be incorporated in the soil prior to planting or applied on the soil surface later.

Garden Planting Guide for Cool Season Vegetables

Vegetable	Time to Plant*	Days to Harvest	Method of Planting
Asparagus	Fall or Spring	-	Crowns
Beet	March	50-70	Seed
Broccoli	March	80-90	Plants
Cabbage	Feb. 15 to March 10	60-90	Plants
Carrot	Feb. 15 to March 10	70-90	Seed
Cauliflower	Feb. 15 to March 10	70-90	Plants
Chard, Swiss	Feb. 15 to March 10	40-60	Seed
Kohlrabi	Feb. 15 to March 10	50-70	Seed
Lettuce, Head	Feb. 15 to March 10	60-90	Seed or Plant
Lettuce, Leaf	Feb. 15 to March 10	40-70	Seed or Plant
Onion	Feb. 15 to March 10	60-120	Sets
Onion	Feb. 15 to March 10	60-120	Plants
Peas, green	Feb. 15 to March 10	60-90	Seed
Potato, Irish	Feb. 15 to March 10	90-120	Tuber pieces 2-3 oz.
Radish	March 1 to April 15	25-40	Seed
Rhubarb	Fall or Spring	-	Crowns
Spinach	Feb. 15 to March 10	50-70	Seed
Turnip	Feb. 15 to March 10	50-60	Seed

*These dates indicate planting times from southeast to northwest Oklahoma. Specific climate and weather may influence planting dates. For Cool Season Vegetables, the soil temperature at the depth where the seeds are planted should be at least 40^{o}F.

Control Peach and Nectarine Leaf Curl Now!

David Hillock

It is common to get calls in early summer by homeowners wanting to know what is wrong with their peach or nectarine tree. Infected leaves pucker, become deformed, and turn yellow or reddish-brown. Unfortunately, by that time, when symptoms are most evident, it is too late to spray anything. Leaf Curl is the culprit and is one of the most commonly encountered diseases in unsprayed orchards and home yards during cold, wet springs. Diseased leaves eventually wither and fall from the trees. Although new leaves emerge from dormant buds, their growth requirements reduce yield and may weaken the trees.

To prevent leaf curl disease, spray peaches and nectarines with a fungicide before bud swell (F-7319). Apply when the trees are dormant and temperatures are above 40 degrees F. Bordeaux mixtures, copper flowable fungicides, Kocide, and lime-sulfur sprays are commonly used for control of leaf curl.

2004 ALL AMERICA SELECTIONS WINNERS

David Hillock

Flowers

Celosia plumosa 'Fresh Look Yellow' Flower Award Winner

'Fresh Look Yellow' offers season-long garden color with minimal care. The golden yellow plumes are produced in abundance, at times covering the plant. The central plume can be 9 inches tall and 6 inches wide. 'Fresh Look Yellow' grows numerous side shoots, which cover mature blooms, eliminating the need for deadheading. When grown in a full sun garden, 'Fresh Look Yellow' attains a height of about 12 to 17 inches and spreads 12 to 15 inches. Plants exhibit heat, humidity and severe weather tolerance. Like all *Celosia plumosa*, flowers can be cut for arrangements or dried as an everlasting bouquet. 'Fresh Look Yellow' is perfect for busy gardeners who want summer-long flower color on carefree plants.

Celosia plumosa 'Fresh Look Red' GOLD MEDAL Flower Award Winner

'Fresh Look Red' performs like a fresh floral arrangement all summer. Thriving in the summer heat and humidity with drought or rainy conditions, 'Fresh Look Red' decorates a garden or patio container with rosy red plumes. It won the coveted Gold Medal for its consistent performance with minimal maintenance and pest-free growth. 'Fresh Look Red' covers up spent plumes by producing new foliage and blooms. The plant always looks fresh, needing no grooming. When grown in the full sun, 'Fresh Look Red' plants mature at 12 to 18 inches tall and spread 12 to 20 inches. The central plume can be 8 to 10 inches tall and 5 inches wide. Like all *Celosia plumosa*, the flowers can be cut and dried for everlasting homemade bouquets. 'Fresh Look Red' also performed very well in trials conducted at OSU-Oklahoma City.

Gypsophila 'Gypsy Deep Rose' Bedding Plant Award Winner
'Gypsy Deep Rose' is an annual *Gypsophila muralis* with dainty, rose-like blooms. This new variety showed several improvements over comparisons. The flower form is double and semi-double, is a darker rose color and is a larger size, up to 3/8 of an inch. The plant produces a higher number of blooms over a longer flowering season. 'Gypsy Deep Rose' forms an enchanting mounded plant with a height of 8 to 10 inches, spreading 12 to 14 inches. This diminutive plant prefers full sun and adapts to container culture. 'Gypsy Deep Rose' is easily grown from seed or bedding plants. Plants require little maintenance.

Hollyhock 'Queeny Purple' Flower Award Winner
'Queeny Purple' is the shortest *Alcea rosea* and the first purple hollyhock available as a single color not part of a mixture. These unique traits combined with season-long flower color resulted in 'Queeny Purple' winning an AAS Award. The frilly edged blooms are a "powder puff" type having a cushion center. They measure 3 to 4 inches and are produced abundantly on the compact branching plants. 'Queeny Purple' plants will reach a mature height of 20 to 30 inches, perfect for smaller space gardens. 'Queeny Purple' is an annual that will flower prolifically the first year from a direct sowing. Plants sown directly in plots at OSU-Oklahoma City were blooming by July. 'Queeny Purple' seed will be available from mail order catalogs and plants may be purchased from garden centers.

Petunia F1 'Limbo Violet' Bedding Plant Award Winner
'Limbo Violet' differs from all other single grandiflora petunias as a unique combination of large flowers on a compact plant. The habit is restricted. 'Limbo Violet' plants become mounds which, at times, are completely covered with blossoms. The ultimate plant size is only 6 to 7 inches tall, spreading 10 to 12 inches. 'Limbo Violet' is designed for small space gardens such as urban residences or formal gardens requiring neat, tidy plants. The dark violet blooms are perfect for gardeners who know "larger is better." At 3 inches or larger, 'Limbo Violet' blooms are huge but recover quickly from severe weather. Plants are virtually maintenance-free, no pinching needed.

Vegetables

Melon F1 'Amy' Vegetable Award Winner
'Amy' is one of the new improved vegetables and an AAS Winner. 'Amy' exhibited improved qualities such as earliness and higher yield when grown next to similar "canary" type melons. 'Amy' melons are eye-catching. They are bright golden yellow with smooth skin. The radiant color indicates when the melon is ready for harvest. Cutting open the mature melon will release the distinctive melon aroma. There is a small seed cavity surrounded by moist, white flesh noted for its sweet flavor and firm texture. 'Amy' plants will produce melons in 70 to 80 days from transplanting. The vigorous spreading vines need 6 feet of garden space or they can be trained up a trellis.

Squash, Winter F1 'Sunshine' Vegetable Award Winner
Consumer media have recently given coverage to winter squash because of its flavor, high vitamin content and ability to be stored. 'Sunshine' is a new squash that outshined other varieties in side-by-side trials across North America. The vibrant orange-red skin is distinctive, similar to sunshine, hence the name. The 3- to 4-pound fruit is a flattened globe shape. The bright orange

flesh is sweet, nutty, creamy smooth and completely stringless when baked, steamed or microwaved. 'Sunshine' plants are adaptable to any growing location as long as the growing season is 80 to 95 days. Expect mature squash in about 95 to 100 days from sowing seed or 80 days from transplants. Harvest ripe fruit in the fall prior to or protect from frost. The short vines need 6 to 8 feet in the full-sun garden.

Watermelon F1 'Sweet Beauty' Vegetable Award Winner
'Sweet Beauty' offers consistently sweet flavor and crisp texture. It was praised by AAS Judges for its superior eating qualities. 'Sweet Beauty' melons are 5 to 7 pounds, an oblong shape with dark green skin and medium green stripes. Described as an "ice box" type, it means 'Sweet Beauty' is a single-serving size. Improved for earliness, 'Sweet Beauty' melons can be harvested in about 77 to 80 days from sowing seed directly into the garden. The vigorous plant spreads vines about 8 to 10 feet.

More Color for the Garden

In addition to the above plants, you may want to try some of the following flowers, which are just a few that performed well in OSU-Oklahoma City and OSU-Stillwater field trials.

OSU-Oklahoma City

Vinca 'First Kiss Sunrise' produces unique rose-tinged salmon color swirl blooms in generous amounts. Plants tend to be well mannered, especially uniform, about fifteen inches tall. Trials of First Kiss Sunrise in Stillwater also received high ratings making it an excellent choice for Oklahoma gardens.

***Petunia miniflora* 'Bella Picotee Burgundy'** produced petite flowers one and one-half inch in diameter with a distinctive and very attractive picotee pattern.

***Trachelium* 'Devotion White'** grows to fifteen inches tall displaying beautiful umbels of white. Three other *Trachelium* cultivars were grown in Stillwater last summer but did not perform real well under the intense light and summer heat.

***Laurentia* 'Blue Stars'** has finely textured foliage that creates a uniform canopy eight inches tall. The cool blue star-shaped flowers are produced atop the foliage even during the intensely hot midsummer.

***Dianthus* 'Amazon Rose Magic'** grows to eighteen inches tall. Clusters of flowers appeared up to six inches in diameter with individual flowers varying in shades of pink, cherry, and white.

OSU-Stillwater

Three ***Angelonia*** cultivars were grown from the **Angelface™** series – **'Blue,' 'Blue Bicolor,'** and **'White.'** All three bloomed all summer and showed no sensitivity to the extreme heat or dry conditions. 'Blue' was more compact than the other two, but all three are highly recommended for use in Oklahoma.

Several ***Calibrachoa*** cultivars from the **Superbells™** series were also grown. Most showed consistent growth through all but the highest temperatures, resuming flowering as temperatures cooled. A few of the top Superbells™ cultivars were **'Blue,' 'Pink,'** and **'Cherry Red.'**

Another group that performed well was the ***Petunia*** **Supertunia™** series. Two top performers were **'Priscilla'** and **'Giant Pink.'**

Upcoming Horticulture Events

Turfgrass and Nursery Field Day
May 20, 2004
OSU Botanical Gardens, Stillwater

Integrated Pest Management for Landscape Professionals
May 25, 2004
OSU, Stillwater Campus

State Master Gardener Conference
June 4, 2004
Pioneer Technology Center, Ponca City

OPGA Annual Meeting
June 11-13, 2004
Idabel

Oklahoma Gardening **Summer Gardenfest**
June 12, 2004
OSU Botanical Gardens, Stillwater

The keynote speaker will be Landscape Architect Tim Thoelecke from Garden Concepts, Inc. in Glenview, Illinois. His presentation will be on "Garden Makeovers."

Greenhouse Production Shortcourse
June 15-17, 2004
OSU-Oklahoma City Campus

Horticultural Therapy Conference
Date - TBA
Stillwater

Multi-State Plant Materials Conference
September 22-23, 2004
Holiday Inn, Stillwater

Nursery/Greenhouse Trade Show and Convention
October 8-9, 2004
Cox Convention Center, Oklahoma City

Tree Care Issues Conference
November 3, 2004
OSU Botanical Gardens Educational Building, Stillwater

For more information about upcoming events, please contact Stephanie Larimer at 405-744-5404 or steph@okstate.edu.